IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPEAL FROM THE EXAMINER TO THE
BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of: Shriniwas Lohia

Serial No.:   09/436,920

Filing Date: November 9, 1999

Group Art Unit: 2141

Examiner: Adnan M. Mirza

Title: SYSTEM FOR COMMUNICATING MANAGEMENT
                         INFORMATION AND METHOD OF OPERATION

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Dear Sir:

APPEAL BRIEF

Applicant appeals to the Board of Patent Appeals and Interferences from the decision of the Examiner mailed August 7, 2003 finally rejecting Claims 1-21 in the above-identified patent application. Applicant filed a Notice of Appeal on December 5, 2003. This Appeal Brief is being filed pursuant to the provisions of 37 C.F.R. § 1.192. Applicant respectfully submits herewith this Appeal Brief, in triplicate, and a check in the amount of $330.00 to cover the statutory filing fee.

REAL PARTY IN INTEREST

The present application was assigned to Cisco Technology, Inc., as indicated by the assignment from the inventor to Cisco Technology, Inc. recorded November 9, 1999 in the Assignment Records of the United States Patent and Trademark Office at Reel 010382, Frame 0608.

RELATED APPEALS AND INTERFERENCES

There are no known appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in this pending appeal.

STATUS OF CLAIMS

Claims 1-21 stand rejected pursuant to a Final Office Action mailed August 7, 2003. Claims 1-21 are all presented for appeal.

STATUS OF AMENDMENTS

Applicant filed a Response Pursuant to 37 C.F.R. §1.111 on June 25, 2002 in response to an Office Action dated May 31, 2002 ("First Office Action"). The Examiner finally rejected Claims 1-20 in a Final Office Action dated September 6, 2002 ("First Final Office Action") and Applicant filed a Response Pursuant to 37 C.F.R. §1.116 on September 30, 2002. Applicant filed a Notice of Appeal on January 6, 2003 in response to an Advisory Action mailed October 18, 2002 ("First Advisory Action"), followed by an Appeal Brief on January 10, 2003 ("First Appeal Brief"). Thereafter, Applicant filed another Response Pursuant to 37 C.F.R. §1.111 on May 29, 2003 in response to an Office Action dated March 31, 2003 ("Second Office Action"). Claim 21 was added in this response. The Examiner finally rejected Claims 1-21 in a Final Office Action dated August 7, 2003 ("Second Final Office Action") and Applicant filed a Response Pursuant to 37 C.F.R. §1.116 on October 6, 2003. Applicant amended Claim 1 in this Response. Applicant filed a Notice of Appeal on December 5, 2003 in response to an Advisory Action mailed November 13, 2003 ("Second Advisory Action"). In the Second Advisory Action, the Examiner entered the amendment made to Claim 1. Consequently, the claims which are on appeal, and which appear in

Appendix A of this Appeal Brief, represent the form of the claims as of the time the Second Advisory Action was issued on November 13, 2003.

SUMMARY OF INVENTION

Referring to Figure 1, a management system 10 includes a management card 12 coupled to a number of interface cards 14 using links 16 and coupled to a client 18 using a link 20. In general, client 18 handles the primary management responsibilities for each of interface cards 14 and/or associated network devices 24 using management card 12.

Management card 12 comprises any suitable combination of hardware and software components that establish one or more communication links 22 between client 18 and one or more interface cards 14 selected in response to a command 40, and communicate management information 42 to the interface cards 14 using communication links 22. A communication link 22 comprises any switched communication path that couples client 18 to an interface card 14 and communicates management information 42 using any suitable communication protocols, standards, and/or formats. Command 40 comprises information selecting one or more of interface cards 14 and/or network devices 24 to which management information 42 is directed.

Each interface card 14 comprises any suitable combination of hardware and software components that enable network devices 24 to communicate with various components of a communication network (not explicitly shown) and with other components of system 10. For example, interface cards 14 include management ports 26 that couple network devices 24 to management card 12 using links 16 such that devices 24 may communicate with management card 12. Network devices 24 comprise computers, servers, workstations, IP telephones, routers, bridges, switches, gateways, hubs, and any other suitable electronic devices that may be managed by client 18 using management card 12.

Links 16 comprise any suitable communication paths between management card 12 and interface cards 14. Management card 12, interface cards 14, and network devices 24 generally reside in a single housing, rack mount, or chassis 28 at a particular location in management system 10.

Client 18 comprises a computer, a workstation, a console, a terminal, or any other suitable processing device that supports the management operations of interface cards 14

and/or network devices 24. Client 18 may execute software associated with management card 12 to perform the management operations of system 10. In one embodiment, client 18 couples locally to management card 12 of chassis 28 using link 20. In another embodiment, client 18 couples remotely to management card 12 of chassis 28 using link 20 and a modem 30. Link 20 comprises any suitable communication path that couples management card 12 to client 18.

In operation, a user operates client 18 to communicate a command 40 and management information 42 to management card 12. Management card 12 receives command 40 communicated by client 18 and establishes one or more communication links 22 between client 18 and particular interface cards 14 selected in response to command 40. Using communication links 22, management card 12 communicates to the particular interface cards 14, the management information 42 communicated by client 18.

A particular advantage of the present invention is that one client 18 may manage many network devices 24 using management card 12. In this respect, management system 10 provides centralized management services to many network devices 24 of a particular chassis 28 using a single point of entry, such as management card 12. The configuration and operation of components in system 10 ameliorates a problem with prior management systems that require each network device 24 to maintain a dedicated communication link to a dedicated client 18 in a one-to-one configuration. System 10 therefore results in decreased costs and complexity in managing network devices 24.

STATEMENT OF THE ISSUES

1.   Are Claims 1, 4-7, 10-14, 16, 18-21 unpatentable under 35 U.S.C. §102(e) over U.S. Patent No. 4,937,777 issued to Flood et al ("*Flood*")?

2.   Are Claims 2-3, 8-9, 15, and 17 unpatentable under 35 U.S.C. §103(a) over *Flood* in view of U.S. Patent No. 6,304,895 issued to Schneider et al ("*Schneider*")?

GROUPING OF CLAIMS

Pursuant to 37 C.F.R. §1.192(c)(7), Applicant states that Claims 1-21 do not stand or fall together. Applicant requests that Claims 1-21 be grouped as follows for purposes of this appeal:

1.   Group 1:   Claims 1, 4-5, 7, 10-12, 14, 16, 18-19, and 21. (Claim 1 will be addressed below and Claims 4-5, 7, 10-12, 14, 16, 18-19, and 21 may be deemed to stand or fall with Claim 1).

2.   Group 2:   Claims 2, 8, and 15. (Claim 2 will be addressed below and Claims 8 and 15 may be deemed to stand or fall with Claim 2).

3.   Group 3:   Claims 3, 6, 9, 13, 17, and 20. (Claim 3 will be addressed below and Claims 6, 9, 13, 17, and 20 may be deemed to stand or fall with Claim 3).

ARGUMENT

Issue 1 concerns anticipation art rejections maintained by the Examiner. Section A reviews the legal standards to be used by the Examiner in maintaining these rejections. Issue 2 concerns obviousness art rejections maintained by the Examiner. Section B reviews the legal standards to be used by the Examiner in maintaining these rejections. Applicant addresses issues 1 and 2 in Sections C-E.

A.   Legal Standard – Anticipation

The Examiner maintains that Claims 1, 4-7, 10-14, 16, 18-21 are anticipated in view of *Flood*. With respect to anticipation under 35 U.S.C. §102, the Court of Appeals for the Federal Circuit has consistently adhered to the basic principle that: "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). In addition, "The identical invention <u>must</u> be shown in as complete detail as is contained in the ... claim," and "[t]he elements <u>must</u> be arranged as required by the claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989); *In re Bond*, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990); M.P.E.P. § 2131 (emphasis added). "All words in a claim must be

considered in judging the patentability of that claim against the prior art." M.P.E.P. § 2143.03 (citing *In re Wilson*, 424 F.2d 1382, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970)).

As required by 37 C.F.R. §1.192(c)(8)(iii), this Appeal Brief will show that each rejected claim is not anticipated under §102, in particular by setting forth the specific limitations in each rejected claim which are not described in the prior art relied on for the rejection.

B.   Legal Standard – Obviousness

The Examiner maintains that Claims 2-3, 8-9, 15, and 17 are obvious in view of the *Flood-Schneider* combination. The determination of whether an invention is obvious in view of prior art considers "if the differences between the subject matter sought to be patented and the prior art are such that the subject matter <u>as a whole</u> would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains." 35 U.S.C. § 103 (Emphasis added). The fact that a prior art device could be modified so as to produce the claimed invention is not a basis for an obviousness rejection unless the prior art suggested the desirability of such a modification. *In re Gordon*, 733 F.2d 900, 221 U.S.P.Q. 1125 (Fed. Cir. 1984). Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion, or incentive supporting the combination. *Carella v. Starlight Archery*, 804 F.2d 135, 231 U.S.P.Q. 644 (Fed. Cir. 1986). In addition, "A prior art reference must be considered in its entirety, i.e., as a <u>whole</u>, including portions that would lead away from the claimed invention." *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 U.S.P.Q. 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). (M.P.E.P. § 2141.02). Moreover, if a "proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious." M.P.E.P. §2143.01.

In approaching this determination, a number of inquiries are made as primary considerations: (1) the scope and content of the prior art are determined; (2) the differences between the prior art and the claims at issue are ascertained; and (3) the level of ordinary skill in the pertinent art is resolved. *Graham v. John Deere Company*, 383 U.S. 1, 16, 148 U.S.P.Q. 459, 467 (1966). It is important that the proper perspective be used in considering

the invention in view of the prior art while conducting the obviousness/nonobviousness analysis. It is improper for an Examiner to use hindsight having read the Applicant's disclosure to arrive at an obviousness rejection. *In re Fine,* 837 F.2d 1071, 1075, 5 U.S.P.Q. 2d 1596, 1600 (Fed. Cir. 1988). It is improper to use the claimed invention as an instruction manual or template to piece together the teachings of the prior art so that the claimed invention is rendered obvious. *In re Fritch,* 972 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992).

As required by 37 C.F.R. §1.192(c)(8)(iv), this Appeal Brief will show that each rejected claim is not obvious under §103, in particular by setting forth the specific limitations in each rejected claim which are not described in the prior art relied on for the rejection.

C.   Group 1 – Claims 1, 4-5, 7, 10-12, 14, 16, 18-19, and 21.

Claim 1 recites, in part, "A system for communicating management information, comprising . . . a first interface card . . . a second interface card . . . and a management card coupled to the first interface card and the second interface card, the management card operable to . . . receive a command from a client, the command identifying an interface card or a network device associated with an interface card ... establish a communication link between the client and a particular one of the first interface card and the second interface card selected in response to the command communicated by the client . . . and communicate management information using the communication link." *Flood* fails to teach, suggest, or disclose the combination of limitations specifically recited in Claim 1.

At the outset, Applicant respectfully submits that the Examiner fails to identify in the Second Final Office Action which components of *Flood* he equates with the "management card," "first interface card," and "second interface card" recited in Claim 1. During a telephonic interview conducted on October 2, 2003, however, the Examiner equated "system controller 16" of *Flood* with the "management card" of Claim 1 and "program execution modules 18" or "I/O scanner modules 20" of *Flood* with the "interface cards" of Claim 1. Given this reading of *Flood,* in order for *Flood* to disclose the "management card" of Claim 1 and its associated functionality, the system controller 16 of *Flood* would have to "**receive a command from a client, the command identifying an interface card or a network device associated with an interface card**" as recited, in part, in Claim 1. The system controller 16

of *Flood* receives no such "command." On the contrary, the "command" relied upon by the Examiner to reject Claim 1 is communicated from one "program execution module 18" to another "program execution module 18." In particular, *Flood* states, "When a program execution module completes a function chart step, it sends a command to the program execution module 18 containing the next step to be executed. The command identifies the next step and instructs the program execution module 18 to begin executing it." (*Flood*, col. 5, ll. 21-26). Therefore, *Flood* fails to teach a "management card operable to receive a command from a client" as recited in Claim 1.

Moreover, the "command" described in *Flood* "identifies the next step and instructs the program execution module 18 to begin executing it." (*Flood*, col. 5, ll. 21-26). Nowhere does *Flood* state that its "command" identifies "an interface card or a network device associated with an interface card" as recited, in part, in Claim 1. In summary, not only is the content of the "command" in *Flood* different from the "command" in Claim 1, but the recipient of the "command" in *Flood* is not a "management card" as recited in Claim 1. For at least these reasons, *Flood* fails to teach, suggest, or disclose a "management card operable to ... receive a command from a client, the command identifying an interface card or a network device associated with an interface card" as recited, in part, in Claim 1.

Flood also fails to teach, suggest, or disclose a "management card operable to ... **establish a communication link** between the client and a particular one of the first interface card and the second interface card selected **in response to the command** communicated by the client" as recited, in part, in Claim 1. To reject this portion of Claim 1, the Examiner relies upon a portion of *Flood* that describes the system controller 16 being "connected through cable 25 to a programming terminal 24." (*Flood*; col. 4, ll. 50-67) (*Second Final Office Action*, ¶1). Terminal 24 of *Flood* "is used to load the user programs into the programmable controller and configure its operation, as well as monitor its performance." (*Flood*; col. 4, ll. 50-54). Significantly, this portion of *Flood* makes clear that the connection created by cable 25 of *Flood* is between the system controller 16 and terminal 24. Since the Examiner equates system controller 16 with the "management card" of Claim 1, then even under the Examiner's own reading, the connection created by cable 25 of *Flood* is only between "terminal 24" and a "management card," not between "terminal 24" and "a

particular one of the **first interface card** and the **second interface card**" as recited, in part, in Claim 1.

In addition, the connection created by cable 25 between terminal 24 and system controller 16 is not "**in response to the command** communicated by the client" as recited in Claim 1. As stated above, the Examiner relies upon a "command" in *Flood* communicated by a "program execution module 18" that "identifies the next step and instructs the program execution module 18 to begin executing it." (*Flood*, col. 5, ll. 21-26). Yet, the Examiner fails to identify any "communication link" that is established "in response to" the cited "command" of *Flood*. Clearly, the connection created by cable 25 and the associated download of "user programs" into the "programmable controller" of *Flood* is not "in response to" the "command" of *Flood* cited by the Examiner. For at least these reasons, *Flood* fails to teach, suggest, or disclose a "management card operable to ... establish a communication link between the client and a particular one of the first interface card and the second interface card selected in response to the command communicated by the client" as recited, in part, in Claim 1.

Flood further discloses that "system controller 16 may be also connected via a cable 26 to a local area network 28 over which it may receive data and programming instructions, as well as issue status information and report data to a host computer. This enables a central host computer or central terminal to program and control the operation of a plurality of programmable controllers on a factory floor." (*Flood*; col. 4, ll. 61-67). Significantly, this portion of *Flood* makes clear that the connection referred to is between the controller 16 and the local area network 28. Again, since the Examiner equates controller 16 with the "management card" of Claim 1, then even under the Examiner's own reading, the connection created by cable 26 of *Flood* is only between "local area network 28" and a "management card," not between "local area network 28" and "a particular one of the **first interface card** and the **second interface card**" as recited, in part, in Claim 1. Moreover, the connection created by cable 26 between local area network 28 and system controller 16 is not "**in response to the command** communicated by the client" as recited in Claim 1.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987); M.P.E.P. §

2131. In addition, "[t]he elements must be arranged as required by the claim." *Richardson v. Suzuki Motor Co.*, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989); *In re Bond*, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990); M.P.E.P. § 2131 (emphasis added). At best, the Examiner has superficially correlated various elements in *Flood* to various elements of Claim 1. A deeper examination of the arrangement and functionality of the elements in *Flood* and of the arrangement and functionality of the elements in Claim 1 reveals that the Examiner is inconsistent in his use of various elements of *Flood* and that the elements of *Flood* are not arranged as recited by Claim 1 to perform the functionality recited by Claim 1. Therefore, *Flood* fails to teach, suggest, or disclose several elements as set forth in Claim 1.

D.   Group 2 – Claims 2, 8, and 15.

Claim 2 recites, in part, "wherein the management card comprises . . . a switch operable to establish the communication link between the client and one of a first port and a second port of the management card . . . a memory operable to store mapping information associating the first port with the first interface card and the second port with the second interface card . . . and a processor coupled to the memory and the switch, the processor operable to . . . receive the command . . . determine the port associated with the particular interface card using the mapping information . . . and command the switch to establish the communication link between the client and the determined port." The *Flood-Schneider* combination fails to teach, suggest, or disclose various aspects of Claim 2.

At the outset, the Examiner has acknowledged that *Flood* fails to teach the specific elements of the "management card" recited in Claim 2. (*Second Final Office Action*, ¶11). However, even the *Flood-Schneider* combination, and the Examiner's rejection based on this combination, has several shortcomings. First, the Examiner completely fails to identify which components of *Schneider* he equates to the "management card," the "switch," the "processor," and the "memory" of Claim 2. Second, to the extent the Examiner equates the "switches 74a and 74b" of *Schneider* to the "switch" recited in Claim 2, Applicant respectfully submits that the "switches 74a and 74b" do not form a part of a "management card" (Claim 2 recites, in part, "wherein the management card comprises ... a switch"). Third, although *Schneider* makes mention of a "switch port," the *Flood-Schneider* combination completely fails to teach, suggest, or disclose "a memory operable to store

mapping information associating the first port with the first interface card and the second port with the second interface card" as recited in Claim 2. Finally, the *Flood-Schneider* combination completely fails to teach, suggest, or disclose "a processor coupled to the memory and the switch, the processor operable to ... receive the command ... determine the port associated with the particular interface card using the mapping information ... and command the switch to establish the communication link between the client and the determined port" as recited in Claim 2. Therefore, the *Flood-Schneider* combination fails to teach, suggest, or disclose many aspects of Claim 2.

E.   Group 3 – Claims 3, 6, 9, 13, 17, and 20.

Claim 3 recites, in part, "wherein ... the first interface card is coupled to a first network device that uses a first operating system ... the second interface card is coupled to a second network device that uses a second operating system ... and the processor is further operable to configure the management information for the operating system of the network device associated with the particular interface card." The Examiner relies upon a portion of *Flood* (col. 4 ll. 33-49 and 61-67) to reject Claim 3. (*Second Final Office Action*, ¶12). Applicant respectfully traverses this rejection.

The cited portion of *Flood* is limited to "I/O racks 17 and networks 15" that "employ conventional interface and communication technology." (*Flood*, col. 4, ll. 43-44). *Flood* also states that the "system controller 16 ... may receive data and programming instructions, as well as issue status information and report data to a host computer. This enables a central host computer or central terminal to program and control the operation of a plurality of programmable controllers on a factory floor." (*Flood*, col. 4, ll. 61-67). Applicant respectfully submits that the "conventional interface and communication technology," "data and programming instructions," and "status information and report data" taught by *Flood* have nothing to do with a "processor" that is "operable to configure the management information for the operating system of the network device associated with the particular interface card" as recited in Claim 3. Indeed, *Flood* does not even remotely consider different "operating systems" or "the first interface card is coupled to a first network device that uses a first operating system ... the second interface card is coupled to a second network

device that uses a second operating system" as recited in Claim 3. Therefore, the *Flood-Schneider* combination fails to teach, suggest, or disclose many aspects of Claim 3.
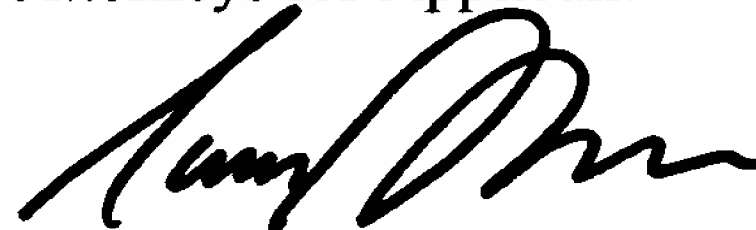
CONCLUSION

Applicant has demonstrated that the present invention as claimed is distinguishable over *Flood* and *Schneider*. Therefore, Applicant respectfully requests the Board of Patent Appeals and Interferences to reverse the final rejection of the Examiner and instruct the Examiner to issue a notice of allowance of all claims.

A check in the amount of $330.00 is attached to cover the statutory filing fee. Although no other fee is believed to be due, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 02-0384 of Baker Botts, L.L.P.

Respectfully submitted,

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Enclosures: Appendix A – Claims on Appeal
                Appendix B – Copy of U.S. Patent No. 4,937,777 issued to *Flood*
                Appendix C – Copy of U.S. Patent No. 6,304,895 issued to *Schneider*